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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/730,122

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Kazuhiro Ishiguro

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EXAMINER

RAHMJOO, MANUCHER

ART UNIT

PAPER NUMBER

2624

NOTIFICATION DATE

DELIVERY MODE

11/25/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No. 10/730,122	Applicant(s) ISHIGURO, KAZUHIRO	
	Examiner MIKE RAHMJOO	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-9 and 14 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/5/09 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 10- 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (US PAP 2002/ 0081031).

As per claim1, Suzuki broadly teaches an isolated dot (i.e., isolation point) discriminating portion judging (i.e., section 76), for each pixel of a plurality of pixels included in an image (i.e., 11 by 11 pixel matrix region), whether the pixel is a center pixel of an isolated dot (i.e., signal held by an 11.times.11 pixel matrix whose center is

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the target pixel, and the pixels corresponding to the isolation point are counted) see for example [0095];

a size detector detecting a size an isolated dot size (i.e., section 79 in addition counts the number of internal edge pixels that exists in a 3.times.3 pixel matrix region in [95] and or 5x 5 matrix data 83 in [0098]; said size explicitly being determined in said regions) whose center pixel is a pixel judged by said isolated dot discriminating portion as being a center pixel (i.e., the center pixel of the 3 times 3 pixel matrix region in [95]). [95] also discloses "a signal from the AND circuit 78, i.e., a signal indicative of whether or not *a pixel* (i.e., any pixel including the 11 by 11 matrix which includes a target pixel as the center pixel) belongs to an internal edge region that is a part of an edge region, is inputted to the internal edge counting section 79 with respect to each pixel;

a dot region discriminating portion (i.e., detection section 81) judging whether a target pixel is included in a dot region based on a count value (i.e., target pixel positioned at the center of matrix data 83) of said pixels judged as being a center pixel (i.e., pixel a33 as the center pixel) of an isolated dot see for example [0098]; and

a dot region determining portion (i.e., detection section 81)determining a dot region based on a position of said target pixel (i.e., matrix data 83 whose target pixel is positioned at the center as pixel a33) judged as being included in the dot region and said isolated dot size detected for the target pixel or a related pixel (i.e., 5x 5 matrix data 83) see for example [0098].

As per claim 10 Suzuki teaches a processor performing prescribed processing on the image, said processor changing a level of said prescribed processing (i.e.,

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minimum filtering) to be performed on said determined dot region in accordance with said detected isolated dot size (i.e., 5x 5 matrix data) see for example [108].

As per claim 11 Suzuki teaches said prescribed processing is smoothing see for example the smoothing in [108].

As per claim 12 Suzuki teaches said prescribed processing is edge enhancement see for example [103].

As per claim 13 Suzuki teaches said level includes a level where no processing (i.e., signal is 2 and no processing is performed) is performed see for example [103].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Sawada (US Patent 6181437).

As per claim 2 Suzuki teaches plurality of calculators (i.e., filters 52- 57) in [0057]. Suzuki does not explicitly teach a plurality of calculators, each using a filter having sensitivity corresponding to an isolated dot size different from each other to calculate an evaluation value corresponding to the relevant isolated dot size for each

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process-target pixel, and a comparator comparing the evaluation values calculated by said plurality of calculators with prescribed threshold values.

However, Sawada teaches a plurality of calculators (i.e., row and column calculators for line image determination), each using a filter having sensitivity corresponding to an isolated dot size different from each other to calculate an evaluation value corresponding to the relevant isolated dot size for each process-target pixel (i.e., for an isolated pixel, counting the number of pixels in scanning window 21 in column 8 lines 20- 25), and

a comparator comparing the evaluation values calculated by said plurality of calculators with prescribed threshold values (i.e., determination of the line image by comparing the result with a count value table and use of a predetermined intensity) see for example column 8 lines 20- 25.

It would have been made obvious to one of ordinary skilled in the art at the time the invention was made to incorporate the teachings of Sawada into Suzuki to include a scanning window for inputting image data containing a target pixel and a counting device for counting the numbers of predetermined pixels and a line image determining device for determining, based on the result of counting, whether the pixel data in the scanning window forms a line image or not and therefore, the determination of the line image can be performed surely and as a result, jaggies at the line image can be surely prevented see for example column 3 lines 5- 32.

Allowable Subject Matter

Claims 3- 9 and 14 are allowed.

Response to Arguments

Applicant's arguments filed 11/05/09 have been fully considered but they are not persuasive.

In response to applicant's remarks on page 9, examiner points to the center pixel is a pixel judged by said isolated dot discriminating portion as being a center pixel (i.e., the center pixel of the 3 times 3 pixel matrix region in [95]). Examiner further points to [95] disclosing "a signal from the AND circuit 78, i.e., a signal indicative of whether or not a *pixel* (i.e., any pixel including the 11 by 11 matrix which includes a target pixel as the center pixel) belongs to an internal edge region that is a part of an edge region, is inputted to the internal edge counting section 79 with respect to each pixel. Therefore circuit 79 counts pixels including the 11 by 11 matrix with target pixel as the center pixel OR the 3 by 3 matrix whose center pixel again is the target pixel. Internal edge counting section 79 also counts the edges (corresponding and indicative of the size of the isolated dot; said counting of the edges would inherently reveal the size) in said 3 by 3 or 11 by 11 pixel matrix due to fact that any pixel, as pointed out earlier, is inputted in to the internal edge counting section 79.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Rahmjoo whose telephone number is 571-272-7789. The examiner can normally be reached on 8 AM- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mike Rahmjoo

November 18, 2009

/Bhavesh M Mehta/

Supervisory Patent Examiner, Art Unit 2624